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Child Science
An Overview

At the beginning of the 20th century, and especially in the two decades immediately before and after the First World War, in most developed countries experiencing rapid modernization, ‘child science’ emerged as a loosely organized scientific and professional movement. ‘Child science’ brought together different professions and disciplines, especially those in education, health, psychology and criminology. All these groups claimed some aspect of child development and socialization as a territory of specialist investigation and expertise. This field was sometimes labelled ‘paedology’, or ‘paidology’, – from the Greek paidos (παιδός) with the root pais (παις) meaning ‘child’ – a name given to it by Oscar Chrisman in the United States in the 1890s – although other terms, like ‘child study’, were also used.

‘Child science’ fostered the establishment of a whole host of at that time new disciplines, including developmental and educational psychology, education research, child psychiatry, developmental physiology and neuroscience, special education, juvenile criminology, and the sociology and anthropology of childhood. It involved the introduction of novel research methods and professional practices, including, for example: systematic observations and diary recordings of early child behaviour (e.g. by parents or kindergarten staff); the medicalization, professionalization and routinization of baby care; mass mental tests and health monitoring in schools; sociological surveys of children, parents and teachers; new principles of school hygiene and rational school management; new medical and educational methods for enabling those with learning difficulties and behavioural problems; new criminological approaches to the rehabilitation of young offenders; and so forth.

The appearance of the ‘child science’ movement was closely linked to the rise of the modern welfare state. The early 20th century was the era of mass warfare, mass migrations and mass industrialization that led to seismic social shifts, prompting advanced states to see their rapidly transforming populations as requiring rational management. What was at stake here was control over the respective societies’ reproduction. It involved both the educated classes’ fear of so-called social and biological ‘degneration’ and the states’ efforts to maintain or enhance their ‘human capital’.

In this context, the child population was perceived as not only especially vulnerable, but also as the most obvious embodiment of the future. As a subject of public discourse, ‘children’ came to be discussed in a way not unlike ‘the environment’ is today – in terms of the values invested in them and anxieties surrounding them – in the context of unprecedented upheavals, risks and uncertainties associated with ‘modern times’. Behind this was the idea that ‘the child was the father of the man’, in the sense that a ‘healthy nation’ and an enlightened and prosperous future society depended vitally on the state’s systematic approach to the physical, psychological and social nurturing of that nation’s children.

Yet the child population was seen not only as requiring care and protection; it also,
crucially, invited cultivation, manipulation, positive transformation. At a time of mass industrialization as well as increased competition between the most advanced states (including, eventually, total war), social engineering ambitions often took precedence over the ideals of emancipation, equality and enlightenment. ‘Child science’ was thus embroiled in a mixed rhetoric that juxtaposed appeals to wellbeing and welfare, civilization and progress, meritocracy and democracy with efforts to create an efficient and competitive labour and military force.

Science, in the broad sense of systematic rational enquiry, was widely deferred to as the principal means of reliably and effectively shaping the future. Exactly what had the right to call itself ‘science’ was, of course, hotly debated. In fact, those involved in the ‘child science’ movement, given its novelty, had to battle very hard to establish their research interests and modes of inquiry, as well as their findings and technologies of application, as legitimately ‘scientific’. In order to gain wider support, they tended to make ambitious and often controversial claims about the contributions of their expertise not only to the scientific understanding of humanity, but also its technological shaping. The political elites did indeed show interest in ‘child science’, especially during and after the First World War. Yet this close connection between ‘child science’ and state politics could operate as a double-edged sword, especially in certain countries, such as Russia. Here patronage from and dependence on those in positions of political power was crucial not only to the rise but also the fall of ‘child science’ as a scientific and professional movement.

Child Science in Russia and the Soviet Union

Russia was among the first countries to start developing ‘child science’, and arguably the country that went furthest in formally institutionalizing it in the early Soviet era. In late tsarist Russia, in the course of the 1880s-90s, a number of Russian psychologists, educators, physicians and psychiatrists enthusiastically embraced the pioneering work done in the area of child development in Germany, France, the United States and Britain. Already from 1900, though, Russian ‘child science’ grew quite independently, creating a fast-expanding network of psychological laboratories, training courses for those working professionally with children, institutes devoted to child development and education research, medico-pedagogical sanatoria for children with developmental and behavioural problems, and large scale conferences for professionals involved in the field (especially teachers, psychologists and doctors). In the course of the 1900s-10s these emerged almost entirely through independent professional and civic initiative, with the tsarist government showing little interest in the movement’s potential before the First World War.

During this period, the ‘child science’ movement was, however, the key domain in
Russia in which new forms of experimental psychology, innovative kinds of education research, original developments in social medicine, and entirely new fields, such as criminal anthropology, were vigorously debated as important areas of scientific and professional work. At the same time, ‘child science’ was a volatile arena of *intra-disciplinary* squabbles between rival scientific groups (especially within psychology) as well as of *inter*-professional politics that involved strategic collaborations and bitter jurisdicitional conflicts between different professions – namely teachers, psychologists, doctors and jurists – around ‘children’ as a common territory of enquiry and expertise.

After the collapse of tsarism in 1917, state interests and ideological concerns emerged as decisive factors on which the fate of ‘child science’ in Russia depended. In the 1920s ‘child science’ was strongly supported by leading Bolsheviks, including, for instance, Lenin’s wife, Nadezhda Krupskiaia, who occupied a prominent position in the Soviet Commissariat of Education. At this time ‘child science’ was given considerable intellectual freedom and wide scope for institutional development: Freudian psychoanalysis flourished alongside a range of mental testing programmes; Pavlovian reflexological neuroscience went hand in hand with research in educational psychology that emphasised free, progressive, child-centric education; developmental anthropometrics (e.g. the study of bodily constitutions) blossomed as much as so-called ‘defectology’ (special education research with a focus on ‘correction’ or ‘enablement’); sociological surveys giving voice to ‘the child’ were developed together with new psycho-physio-sociological constructions of ‘juvenile delinquency’. In this period Soviet ‘child science’ produced such major theorists of developmental psychology and education as Lev Vygotsky, whose influence in these areas is felt internationally to this day. Whilst in the West the ‘child science’ movement at this point tended to fragment into discrete disciplinary and professional specialisms, in the USSR, especially in the late 1920s, the Soviet state promoted ‘child science’ (under the label ‘paedology’, in Russian *pedologiia*) into an integrated interdisciplinary ‘super-
science’ that brought together all forms of research into child development and socialization. ‘Child science’ was meant to be one of the cornerstones of the Bolshevik programme for rationally planned and scientifically-grounded radical social reform, especially their efforts to build mass education, social healthcare, and other forms of socialist state welfare that would distinguish the Soviet Union as an entirely new kind of state.

However, in the late 1920s-early 1930s (the period known as the ‘Great Break’ when Stalin took over the running of the country) the early-Soviet ‘child science’ network became subjected to much more stringent political scrutiny by the Communist Party. The Party now sought to ensure closer and more centralized control over the financing of ‘child science’, over its administrative running, its ideological underpinnings, its practical applications, and its propaganda value. The aim was to enrol ‘child science’ into the new Stalinist agenda of intensified ‘socialism-building’, i.e. the forced, military-like industrialization of the USSR.

At first Soviet ‘child science’ seemed to benefit from this attention, with the Party elite sponsoring paedology’s first (and only) all-Union congress and launching a journal specially dedicated to it. The Commissariats of Education and Health worked jointly to set up a service of in-house ‘paedologists’ in all Soviet schools, whose responsibility would be to help teachers in various areas, especially class streaming, problem pupils, and other issues where expertise in child development, psychology and health were at stake. However, the consequence of paedology’s new prominence and increased politicization was that the movement also became embroiled in factional struggles within the Communist Party during a crucial stage of the Stalinist takeover. The latter involved the effective ‘liquidation’ of the old Leninist guard, many of whom, like Krupskaia, were key figures at the Commissariat of Education and known supporters of ‘child science’. This was coupled with significant reforms of the Soviet education system in 1931, which entailed a shift away from experimental, child-centric and free-educational frameworks, which dominated the 1920s and were associated with ‘paedology’, and towards more traditionalist, disciplinarian, teacher-led paradigms, characteristic of 1930s-50s Stalinism.

In the course of the early 1930s, mounting ideological criticism of the ‘child science’ movement, as well as of its supporters within the state administration and the Party, eventually led to the notorious 1936 Party decree on the so-called ‘paedological distortions’ in the Commissariat of Education. In a remarkable reversal of fortunes, ‘paedology’ was denounced as a ‘reactionary pseudoscience’ and expunged from the institutional map of Soviet research and education. The decree prompted the immediate dismantling of all institutes and courses associated with ‘paedology’, the arrests and dismissals of state officials associated with the network, while all scientists involved in this research had to publicly denounce their ‘errors’ and to distance themselves from their earlier work. Arguably the most virulent criticism was reserved for mental testing, which was presented as the child-scientists’ trademark method. The latter was condemned as classist and racist, as an enactment of counter-revolutionary, anti-Soviet ‘bio-social determinism’, insofar as the ‘paedologists’ seemed to label large numbers of children from the Soviet working and peasant classes and ethnic minorities as ‘backward’. They inevitably pointed to their disadvantaged backgrounds and to the difficult social conditions in which they were growing up, something that went directly counter to the
thrust of Stalinist propaganda of this period, which in 1936 produced the motto: ‘Thank You Comrade Stalin for Our Happy Childhood!’

‘Paedology’ thereby became an odious word and remained as such from 1936 until the collapse of the Soviet Union. Those continuing to do research in child psychology, physiology, psychiatry and education in the USSR had to avoid association with early-Soviet ‘child science’ and to distance themselves from the latter’s legacy (especially mental testing, although a renewal of interest in the latter can be noticed in the early 1980s). This research also had a far less direct connection with the school system and tended to be pursued mostly in academic circles. While some classical work from the 1920s-30s period (e.g. by Vygotsky) did start to be republished from the 1960s and especially the 1980s, texts continued to be carefully censored when it came to the topic of ‘paedology’ itself. It was only during perestroika in the late 1980s and then the early 1990s, after the collapse of Communism, that interest in the ‘purged science’ of ‘paedology’ truly remerged. At this point ‘paedology’ was presented as yet another tragic victim of Stalinism that needed to be ‘rehabilitated’.

Yet debates on the history of Russian/Soviet ‘child science’ continue to this day in the Russian Federation. In addition to Russia’s dealing with its Stalinist past, at issue here is the significance of the legacies of early-20th century ‘child science’ for contemporary
disciplines involved in the study of child development, psychology, and education. This is especially the case in the context of extensive reforms in child welfare and education that are currently being debated in Russia, entailing some uncertainty about what approach to adopt on a number of key issues (for example, inclusive vs. special education; streaming and the use of testing; teacher authority and classroom discipline; the deployment of liberal, child-centric methods, often associated with the West vs. traditional, disciplinarian ones, associated with ‘good old’ Soviet practices). In this context, ‘paedology’, especially in the way it had been developed in the Soviet 1920s by figures such as Vygotsky, is cited as offering a unique – complex and integrative, interdisciplinary and synthetic – approach to child development and education that seems to be missing in the contemporary fragmentedness of scientific and professional approaches to children, each with their own institutionally delimited areas of work, expertise and state welfare funding.

However, what we see in the Russian Federation today is not the revival of ‘paedology’ as such, a label that still seems to carry the burden of its 1936 indictment by Stalin. What is growing more successfully in Russia today are certain related, but slightly narrower scientific-professional movements that are relatively new (though they can be seen emerging as vaguely ‘dissident’ strands already in the late Soviet era) and that merely claim certain genealogical links to Russia’s early-20th-century traditions of ‘child science’. These include, for example, the so-called ‘pedagogical anthropology’ movement, which draws on paedology’s legacy of ‘synthetism’ in the study of child development; or, for instance, the movement of ‘psycho-pedagogical diagnostics’ which locates its roots in the early-20th-century mental testing technologies that had been so fatefully linked to ‘paedology’.

Professions, Disciplines, Expertise
Collaboration and Conflict

The research currently carried out by Dr Andy Byford (Durham University) will result in the first comprehensive book-length history of the rise and fall of Russian ‘child science’ between the 1880s and the 1930s, placing it in the wider, international, historical and contemporary context. The project investigates the institutionalization of this multidisciplinary field in Russia, with particular focus on the problems of collaboration and conflict between different stakeholders – including representatives of different disciplines and professions, state structures, the wider society, and parents – around children as objects of study, knowledge and care. This research examines what generates and makes possible highly heterogeneous fields of scientific and professional work, carried out through multiple interactions and collaborations between actors belonging to a range of disciplinary, professional and administrative structures and environments.

Some of the key research questions raised by this research include:

How can history help us understand contemporary controversies surrounding the mental testing of children? What has been the historical role of psychiatry in the public management of ‘problem children’? What has historically been the relationship between the medical, legal, psychological and educational professions in areas such as juvenile criminology? How are parents mobilized into the scientific study of child behaviour and development?

What happens when experts in different disciplines and professions lay claim to children as objects of research? How well do different experts collaborate in such cases? What are the main conflicts and obstacles that arise in the process? How do experts in different aspects of childhood interact with the wider public, especially parents and carers?
In addition to charting the overall socio-cultural and institutional-intellectual history of Russia’s ‘child science’ movement Dr Byford’s research has focused on the following key areas.

- **The enrolment of parents** in ‘child science’, with particular focus on how and why *parent diaries* of early child development proliferated in Russia/USSR between the 1880s and 1930s.

- **The mobilization of teachers** into ‘child science’, with particular focus the influence of psychologists on educational theory and teacher professionalization.

- **The controversial rise and fall of mental testing** as a key method in ‘child science’, with particular focus on the way it enabled interaction and collaboration between psychologists, psychiatrists, teachers, parents and administrators around children.

- **The doctors’ infiltration of the field of education** as a major feature of ‘child science’, with particular focus on the institution of the ‘school doctor’, paediatric prophylactic social medicine, and the influence of psychiatry on special education.

- **Neurological behaviourism** as a distinctive, and for a while dominant, strand in Russian/Soviet ‘child science’, with particular focus on the role played in the movement by *esoteric scientist language* of the theories of reflexes developed by the famous physiologist Ivan Pavlov and neuro-psychiatrist V. M. Bekhterev.

- **The rise of juvenile criminology** in the early 20th century, with particular focus on the connections between the institutional management of juvenile delinquency in institutions for young offenders, on the one hand, and the construction of juvenile delinquency as a distinct *domain of knowledge and expertise*, on the other.
The Parent as Child Scientist

In the tsarist era, at the turn of the 20th century, ‘child science’ grew in Russia through the mobilization and collaboration of actors belonging to the empire’s growing professional intelligentsia, stratified across distinct, mutually competing, disciplinary, professional and administrative structures and environments, especially those of education, medicine and psychology. Significantly, though, parents belonging to this same social group – tsarist Russia’s educated class – were perceived as another vital stakeholder (especially early on in the movement’s development, between the 1880s-1900s). Infant care and preschool upbringing, in the home environment and the family context, were in this context designated as the territory of parental jurisdiction.

However, parents were mobilized into ‘child science’ in ambivalent ways, not least because ‘the parent’ was usually a woman, whose position in the field of ‘science’ was at this time – on account of women’s restricted access to higher education – considered inferior and marginal, if not illegitimate by default. ‘The (educated) parent’ as a participant in ‘child science’ was, therefore, consistently kept on the boundaries of expert knowledge. Even on their own supposed ‘turf’ – that of early child care and upbringing – parents were patronized by a small but growing body of (commonly, but by no means exclusively, male) experts and professionals in infant hygiene, preschool pedagogy and child psychology. And yet, a number of these new experts also sought to enrol parents in ‘child science’ as collaborators in a scientific enterprise, casting them as particularly well-positioned potential observers of the earliest phases of child development. Such opportunities for scientifically relevant observation were, however, always meant to be closely linked to the parents’ (uncontroversial) responsibility for early upbringing or nurturing.

One of the key supports in the mobilization of parents in ‘child science’ was the parent’s diary of the first years of a child’s life (often dubbed ‘mother’s diary’, although a few fathers also took up this practice). In this context the parent’s diary was situated strategically on the boundary between, on the one hand, ‘parenthood’ (a culturally specific type of educated parenthood associated with the wider self-identity of the late tsarist Russia’s professional middle-classes) and, on the other, ‘science’ (the emergent field of expert knowledge in child development, care and socialization). This turned the parent diary into an object with an ambiguous orientation between experts and parents alike; an object instrumental (in both the literal and the metaphorical sense of the word) to their mutual interaction and cooperation; an object crucial to the articulation – precisely through this interaction – of the (inherently differential) expertise in ‘child science’.

Parent diaries of child development were one of the key genres of the ‘child science’ movement internationally as well. Particularly influential in Russia was the publication of the psychologist William Thierry Preyer’s (1840-1897) Die Seele des Kindes (The Soul of the Child, Leipzig, 1881; first translated into Russian in the 1890s) – an account of infant development, based on the author’s systematic diary observations of his son, from birth to the age of three. Preyer’s work established this type of diary...
as a major method in the study of early childhood – a practice he suggested could and should be emulated by others in systematic fashion, especially parents. *Die Seele des Kindes*, contributed greatly to the diary of child development being turned into a practice and a discourse that made serious scientific claims while simultaneously mobilizing around it a wider network of stakeholders, promoters and emulators ready to engage in it in a variety of ways. What became so influential in the decades to follow, in Russia as elsewhere, was less Preyer’s specific model of diary-keeping or his particular account of child development, and more the very possibility of deploying diaries of child development written by parents to foster child study networks, in which particular sets of relationships would be established between an emergent body of experts in infant development (early child psychology in particular), related professionals who claimed early child care and upbringing as their jurisdiction (mostly doctors and educators), and wider groups of engaged parents.

Maternal diary-keeping was certainly promoted in the wider discourse of the educated classes as a significant marker of social distinction – namely that of ‘educatedness’ – for women from the social elite. Tolstoy’s bestselling novels could be seen as playing some a role in this. Tolstoy’s portrayal of an ideal of motherhood in Countess Mariia Rostova (née Princess Bolkonskaia, wife to Nikolai Rostov) in the epilogue to *War and Peace* (1863-69) included a description of her keeping a diary of the development of her baby son Andrei. Tolstoy modelled this on the diary kept in the late 1820s by his own mother, Countess Mariia Nikolaevna (née Princess Volkonskaia), during the infancy of his elder brother Nikolai, as well as the diary notes of his own wife, Sof’ia Andreevna. However, Russian parent diaries thrived and were promoted primarily at the complex intersection of (parental) ‘upbringing’ and (child) ‘science’, the relationship between which was at this time shaped above all in the context of the expanding ‘child science’ movement. There were a number of spheres of origin of Russian ‘child science’, in which parent diaries in particular were promoted in the late 19th and early 20th century, up until the First World War. These were: the *professionalization of early child care and preschool pedagogy*, i.e. the emergence of the nanny and kindergarten movement; the *medicalization of baby care* and the proliferation of prophylactic and hygiene propaganda, i.e. the growth of baby-care books and courses targeting the ‘modern mother’; and finally the rise of modern forms of *scientific psychology*, which entailed the expansion of its methodological toolkit (which included the diary of early development, as already mentioned in connection to Preyer).

All of these areas were essential in the activities of *organizations that mobilized parents into ‘child science’*. These were especially the so-called *parent circles*, of which the most significant was the St Petersburg Parent Circle. The early meetings of the St Petersburg Parent Circle consisted mostly of mothers reporting on their children, based on notes written down in diaries of varying degrees of detail and systemicity. These readings would usually be followed by a general discussion, during which an expert, such as a doctor, would provide more technical commentary. Although the proceedings were kept relatively informal, with those cast as experts sometimes discussing their own children, the meetings were also framed as ‘courses for parents’, with professionals taking on a leadership role, often lecturing to those assembled. Nonetheless, the active
enrolment of parents in what was envisaged as an emergent science remained crucial. A number of experts were keen to make parental observations and registrations of children’s psychological development more methodical and ‘scientific’. The Circle’s meetings also featured reports on significant academic publications, such as translations of Preyer’s *Die Seele des Kindes*.

However, the parents who engaged most actively in diary-keeping of this sort commonly identified this practice not only with ‘parenthood’ as such, but also within certain ‘quasi-professional’ aspirations – in the realms of both education and psychology – i.e. with interests that went beyond their role as ‘mere’ parents of a particular child. The specific positioning of individual parents on the boundaries of expertise in ‘child science’ varied, something usually linked to whether they were a male or a female. The relatively few fathers engaged in diary writing inclined to identify more with the realm of ‘science’, especially psychology. The key example here would be A. F. Levonevskii’s *Diary of a Father*, 1914. Levonevskii being also a translator of psychological literature, especially the works of the German psychologist William Stern, which were also based on diaries of development kept by his wife Clara and himself. The most active and vocal of mothers identified instead with the role of the *mother-educator*, which they developed as *the* role for mothers from the educated classes. The key example here would be E. K. Krichevskaiia’s *My Marusia*, 1916. Generally, women who engaged in diary writing of this sort particularly seriously and systemically, and whose diaries were eventually published, tended to be women who were already involved professionally in the growing pre-school education movement.

The *experts* who were the most interested in parent diaries of child development were particular groups of psychologists who considered turning parent diaries into a legitimate *method of psychological study*. Crucial to their project was the desire to make parental diary-keeping ‘objective’ through standardizing observations and diary notations (for example, through numerous manuals, instructions, structured questionnaires, pre-made diary templates and model diaries). Their aim was to eliminate the ‘unscientific’ interference of parental subjectivity (as a rule associated with femininity). Nonetheless, the parent diary of child development, even when promoted, was kept by these psychologists teetering precariously on the outer edges of scientific legitimacy. What was at stake in the psychologists’ project was less the actual use of parental observations for scientific purposes (since they never seemed to properly allow them into the domain of scientific ‘objectivity’), and more the deployment of the (inherently subjective) ‘parent’ as a foil against which the proper ‘objectivity’ of the psychological method of prolonged diary-based observations of a developing child would be articulated and legitimized. The reason for this was that these psychologists hoped to promote the diary in competition with, but also in emulation of, certain other psychological methods, especially experimental ones, which dominated psychology’s self-definition as a science at this time. In this context, the parents themselves were granted the ‘soft’ domain of ‘upbringing’, but not the ‘hard’ one of ‘science’, apart from perhaps as amateurs or admirers of ‘child science’.

Although a certain degree of standardization and professionalization of child-observation and diary-keeping was achieved in the regulation of the work of female *staff* employed in institutions for early child care and education, especially during the Soviet
1920s, actual parent diaries as such continued to be side-lined as a minor, dilettante genre, of value mostly as experiential narratives – the sharing of the maternal ‘joys and woes’ – of interest to other mothers, but of limited use to psychologists. Parent diaries were recognized as scientifically interesting and legitimate only in the relatively few cases where the parent-diarist (the mother) was at the same time a fully qualified psychologist engaging in this practice as a researcher rather than a parent. This was the case, for example, with Vera Shmidt (1889-1937), who was a prominent member of the early 1920s Soviet psychoanalytic movement, and a key member of staff at the Psychoanalytic Society’s kindergarten. She kept a diary of her son Volik, as both mother and educator and psychoanalyst, and combined these records with those kept by other staff at the above psychoanalytic kindergarten, which her son attended, together with children of various members of the Kremlin elite, including Stalin’s own son Vasia.

Child Psychology and Teacher Professionalization

The first decades of the 20th century were a decisive period in the history of education in the Russian empire. It was marked by the awakening of public and professional initiative, and a gradual dismantling of authoritarian, bureaucratic formalism that emblemized tsarist schooling since the 1870s. One major issue in these transformations was the problem of the social standing of teachers, including their professional autonomy, financial situation, working conditions and corporate identity.

Russian educators were at this time very heterogeneous in terms of qualifications, social background, gender, earnings, and social aspirations. There was a vast gulf between those occupying posts in elite high schools in the capitals and the lowly village teachers, who could barely make ends meet in the provincial outback. However, towards the end of the 19th century, the profession, irrespective of category, seemed bound by a common sense of dissatisfaction and low self-esteem. This led, between 1900 and 1907, to the formation of an increasingly politicized ‘teachers’ movement’ that not only called upon the tsarist government and the educated society for improvements to be made to their professional standing and working conditions, but also for the profession to be properly recognized as performing a key social function, of vital significance to the people and the empire.

The teachers’ aspirations were not just narrowly trade unionist, however. Among
the challenges deemed essential for realizing their self-perception as legitimate members of the nation’s intelligentsia was the construction of a suitable form of expertise that would raise educators to a level similar to that of other, more reputable, professionals, such as doctors, lawyers or academics, and that would provide them with the required legitimacy both within the school and in society at large.

Teachers were very concerned about their public image, characterized by ‘lifeless’ formalism, routine and mediocrity. They decried, yet also admitted the symbolic truth of, popular literary and journalistic representations of the teacher as an automaton encased in a shell of bureaucratic routine, or a petty, bitter pedant engrossed in ‘gloomy dissatisfaction’. Teachers complained in their periodicals about being unjustly targeted by society and under fire not only from the schools’ bureaucratic authorities but also from students, parents and the press. They were especially resentful that much of their bad reputation came from the poor opinion that their students were spreading about them, although they believed that children assimilated this disrespectful attitude especially from their parents, who refused to recognize teaching as implying any expert authority. They complained that every Tom, Dick or Harry seemed to think himself qualified to judge their methods and quibble with their educational decisions or student evaluations. Teachers also strongly felt their inferiority in relation to other professions. They were especially sensitive to doctors and university professors looking down on them, claiming that they knew far better than teachers how children should be educated and schools managed.

Overcoming excessive bureaucratization was considered an essential step towards enhancing the teachers’ social status. However, it was also recognized that this would not in itself overcome public contempt and condescension. In fact, many warned that it would be dangerous to abandon all ‘control’ and allow complete ‘freedom of teaching’, as this was likely to lead to anarchy. Since the problem was ultimately that of building public trust, it was argued that if individual teachers happened to abuse this trust even minimally, it could bring irreparable damage to the profession as a whole. As one commentator put it, since the stakes were so high ‘in this matter, which concerned the fates of living individuals, namely children, and the vital interests of their parents and of the whole of society’, one could simply not rely on the teachers’ ‘only human’ judgment alone.

Thus, teachers still needed to be controlled somehow, although not bureaucratically, as had been the case throughout the last quarter of the 19th century. The problem with this bureaucratic regime was that the teachers’ own bureaucratic ‘clout’ was weak within the school hierarchy (in relation to the school management), whilst appearing arbitrary and unconvincing outside it (in relation to the parents or their pupils). The educators’ motivation behind overturning this particular structure of power was not just the idealistic drive to democratize education and rebuild it on rational and humane grounds, or to emancipate their own profession, even if all of these happened to be their sincerely stated aims. A key drive behind the campaign to replace a (negatively connoted) ‘bureaucratic’ order with a (positively connoted) ‘scientific’ one was to reinforce the symbolic foundation of the teachers’ authority – a foundation that needed to exist not just in abstract terms, but as an indispensable support in concrete professional actions and decisions (for example, those related to student
evaluations as exemplary of the teachers’ power over children’s destinies).

The most visible result of this drive was the proliferation during the 1900s-1910s of new kinds of courses, conferences and societies that emphasized the grounding of pedagogy and teacher training in the scientific study of children, especially their psychology – a movement that went by a number of interrelated labels, such as ‘scientific pedagogy’, ‘pedagogical psychology’, ‘experimental pedagogy’, and ‘paedology’.

The movement for ‘scientific pedagogy’ had started as an attempt to redefine teaching in terms of a rather different kind of practice – namely an ‘applied’ form of child and developmental psychology. Teaching seemed so inferior to the work of other professions, that some of those campaigning to improve the teachers’ image thought that it was essential to transform the very nature of the teachers’ work, so that one could not possibly identify it with the monotonous, formalist drill that the majority, including the teachers themselves, associated with the profession. A particularly widespread solution was to construct the new, progressive teacher as effectively a child psychologist, or more specifically – a ‘developer’ of schoolchildren’s ‘souls’.

In addition to making the teachers’ tasks more interesting, important and responsible, the hypothetical turning of teachers into applied child psychologists was used especially as a way of distinguishing the pedagogue’s expertise from that of the scholar’s. It was argued that, contrary to university professors, a teacher’s real material was not the subject that he imparted to his students. The teacher was supposed to use this subject only ‘as a tool for influencing the spiritual forces of the child’. Consequently, it was less important for teachers to advance their subject knowledge and much more relevant to study the ‘science of the human soul’. The focus on child psychology was also meant to create corporate unity for the profession, combating the fragmentation of secondary-school teachers into a heterogeneous collection of specialists in different subjects.

At Russian universities psychology was taught as part of philosophy, in a theoretical and mostly generalist way, whilst the empirical study of child and developmental psychology remained, in mainstream academia, a virtually uninhabited realm. This area therefore seemed like something that teachers could indeed claim as their own territory. It was argued that, since teachers had daily access to children, they were better placed than anyone else to carry out systematic observations of children’s psychological development. The most practical task for such ‘teacher-psychologists’, which seemed perfectly in line with their educational role, would be to determine the concrete psychological traits and abilities of their students, firstly in order to be able to make an objective evaluation of each child, and secondly, in order to decide how best to influence this child’s mental and moral development. It was also speculated that some teachers could, depending on their abilities and inclinations, even go beyond purely ‘diagnostic’ and ‘applied’ tasks, and use their observations to develop more general theories of child psychology.

This ‘psychological turn’ was interpreted as a veritable paradigm-shift in pedagogy, with ‘pedagogical psychology’ coming to dominate teacher-training manuals and lecture courses. Every self-respecting textbook in pedagogy, especially one that would refer to this discipline as a ‘science’, had to provide a detailed account of psychology as its backbone or else face scorn and rejection from reviewers. The majority of these textbooks ended up, in fact, as
effectively courses in psychology, with pedagogical ‘consequences’ and occasional practical advice tacked on as mere appendices at the end of each chapter. Psychology was understood as the official ‘scientific foundation’ of pedagogy. Whilst psychology featured as a ‘pure’ science, pedagogy became its ‘application’ in the (practical) field of education. Those keen to highlight pedagogy’s scholarly credentials (as effectively an applied human science) would argue that, although pedagogy itself was not taught at university, it was founded upon a legitimate university discipline – psychology.

The problem of the teachers’ role in psychology became a pivotal issue not just in the transformation of the teachers’ own expertise, but also in struggles between different groups of psychologists to define the scientific identity of psychology itself. Scholars specializing in psychology were aware of the huge potential of the ‘teachers’ market’ and were keen to promote their discipline among educators, invariably arguing that psychology ought to be a key part of the teachers’ professional development.

The field of education was important to psychologists because psychology was not exactly an autonomous academic discipline at this time – it had the reputation of a mere ‘handmaiden to philosophy’, whilst its scientificity was under constant attack from physiologists, neurologists and psychiatrists, who sought to redefine it in line with their own disciplinary agendas. In fact, it was only in the sphere of education and specifically in relation to ‘lowly’ pedagogy that psychology emerged in a dominant role, as a perfectly respectable science in its own right. Of course, this eminent academic status of psychology in relation to education and pedagogy had to be constructed as such and constantly maintained, which is how teachers became the most important ‘interested’ public to whom psychologists promoted the idealized visions of their discipline.

Russian psychologists were by no means united on the issue of psychology’s disciplinary identity. On the one hand, there were the university professors of philosophy who gave pre-eminence to general, theoretical psychology and the method of ‘introspection’, confining the value of objective methods or ‘experimentation’ to the most elementary psychic functions, especially those on the boundary with physiology (e.g. the study of sensations). They saw experimental techniques and statistical analyses of experimental data as promising but still underdeveloped, and they were therefore very cautious about ‘facts’ produced this way, which they suspected of being potentially rooted in an epistemologically blind form of neo-positivism.

On the other hand, there was the younger batch of psychologists, some with a background in philosophy and others with education in medicine, who, especially during their postgraduate training abroad, became steeped in the culture of laboratory experimentation that reigned at German universities. They were keen to introduce this experimental, laboratory culture to Russian psychology and to work on developing a still newer and yet more controversial form of psychological technology – mental and personality tests – which were also being pioneered in France and the United States.

Both the university professors and the younger ‘experimenters’ courted teachers, doing their utmost to get them to back their opposing disciplinary paradigms, although the teachers’ support seemed rather more important to the latter, because they had no
institutional following other than the trainee or novice teachers whom they tutored in teacher-training establishments. Teachers were therefore cast in the role of this group's supposed scientific ‘disciples’, as opposed to just a passive audience with a general interest in psychology, or as narrowly practical consumers of an otherwise purely academic expertise, which is how the university professors tended to relate to them. Of course, even the ‘experimenters’ were perfectly clear that teachers could not seriously think of simultaneously becoming full-time psychologists, but the legitimation of their programme of psychological experimentation, which was being developed outside mainstream academia, depended greatly on persuading teachers that their involvement in psychology at teacher-training establishments represented a direct, and perfectly legitimate, involvement in ‘science’ itself.

The thorny issue of whether and in what sense teachers could be expected to ‘do’ psychology, and what exact relation consequently obtained between psychology and pedagogy (inextricably intertwined with the fight over what counted as legitimate psychology itself), became the most important bone of contention at the First and Second Conferences in Pedagogical Psychology in St Petersburg (1906 and 1909). The title of these two conferences did not imply a rigorous definition of ‘pedagogical psychology’. Its connotations captured above all the exciting new alliance of psychology and pedagogy, or rather, the promising and hugely seductive, if still hypothetical and controversial, image of the Russian educator as a ‘teacher-psychologist’. Teachers (mostly those working in secondary education) flocked from all parts of the empire with great expectations and much enthusiasm, numbers reaching several hundred. The audience also included school directors and inspectors, doctors and psychiatrists, and a number of professors and junior academics from philosophy departments. The papers read at these conferences dealt with a large variety of ‘child science’ topics, but the most important ones revolved around the problem of the scientific identity and mutual relation of psychology and pedagogy, and the place of psychology in education. Ultimately, however, the teachers’ involvement in psychology remained dependent on the authority of academic specialists, who used the education profession’s craving for ‘science’ as a platform to settle their own scores, while selling to teachers a new ‘science of education’ to be erected ‘on the ruins’ of old, traditional pedagogy.

The two principal labels under which this new, properly ‘scientific’, form of pedagogy was promoted, were experimental pedagogy and paedology. Both notions were imported from the West. Experimental pedagogy came from Germany, and was associated primarily with the work of Wilhelm Lay and Ernst Meumann. Paedology originated in the United States and its recognized ‘father’ was Granville Stanley Hall although the name had been coined by his student Oscar Chrisman. The underlying conceptions of the two disciplines were by no means identical, but in Russia they were usually promoted in unison, by the same group of people and as part of a unified campaign to turn pedagogy into something resembling ‘science’.

‘Experimental pedagogy’ was still promoted primarily as an ‘alliance of the teacher and the psychologist’ and the emphasis was mainly on the fact that the methods used relied strictly on ‘experimental’ (mental testing) techniques. Since it fashioned itself as a form of ‘pedagogy’, the discipline was marketed as expertise relevant to educators. The term ‘experimental’ (apparently acquiring a ‘magical aura’ in the eyes of some
teachers) served as a synonym of the word ‘scientific’ itself (implying the natural-scientific model). This adjective referred not to experimentation with different teaching techniques but to the experimental study of children’s psychology, which meant that ‘experimental pedagogy’ was, ultimately, still a camouflaged expansion of experimental psychology into education. It was argued that experimental psychology in its original, orthodox form was rigorously lab-based and that it could therefore deal only with relatively simple psychological processes in an isolated way. By contrast, experimental pedagogy supposedly involved research into the full complexity of children’s psychology in a real-life environment – the school – and primarily for the practical needs of education. This was sometimes expressed through arguments that whilst psychological experimentation was predominantly ‘analytical’, pedagogical experimentation (though still dealing with children’s psychology) was fundamentally ‘synthetic’.

As for ‘paedology’, its early promotion during the 1900s-1910s did not always make it clear if this was a new discipline in its own right, a collaboration of already established sciences and professions, or a very loose ‘movement’ devoted to the study of children from a variety of methodological perspectives. Most often, though, ‘paedology’ was also explicitly associated with the above ‘experimental’ movement in pedagogy and psychology, the idea being that ‘paedology’, too, gave priority to objective ‘experimentation’ as its main method of investigation.

Significantly, ‘paedology’ was popularized in Russia at this time not just as a general ‘science of the child’, but precisely as a new pedagogy that aimed to put the old ‘art of education’ on positive, scientific foundations. The similarity in the sound of the terms ‘paedology’ and ‘pedagogy’ sometimes led to confusion, with people occasionally mistakenly calling training courses that were officially dubbed ‘paedological’ – ‘pedagogical’. However, when deployed strategically, the term ‘paedology’ was (not unlike the adjective ‘experimental’) used to symbolize scientificity, in important distinction to ‘pedagogy’ pure and simple, which tended to connote educational practice. However, for this same reason, the term ‘paedology’ was likely to appear potentially alienating to practicing teachers, which is possibly why ‘experimental pedagogy’ had greater currency in the educational realm during the 1910s, as evidenced in the renaming of the three sequels to the above two conferences in pedagogical psychology into Conferences in Experimental Pedagogy (in 1910, 1913 and 1916).

Both ‘experimental pedagogy’ and ‘paedo’logy were marketed aggressively as an overturning of ‘old’ pedagogy and a radical transformation of the teachers’ ‘science’. However, in the course of the 1910s, the gap between the scientists who were developing this ‘new pedagogy’ and the teachers, whose professional expertise it was supposed to become, appeared to be constantly widening. Following the appearance of several training colleges, research institutes and laboratories devoted to experimental psychology and ‘child science’ more generally, the ‘experimenters’ were able to create a sufficiently large corps of young researchers to no longer need the direct involvement of the wider teaching masses. On the contrary, such involvement of non-specialists became embarrassingly compromising. The ‘experimenters’ still relied greatly on the educational field as the main beneficiary or ‘consumer’ of their expertise, but from the 1910s onwards, teachers were no longer expected to play the role of their scientific ‘disciples’.
The consequence of this was that ‘experimental pedagogy’ and ‘paedology’ became increasingly dissociated from pedagogy. Teachers were starting to express more and more dissatisfaction and disappointment with these new ‘sciences of education’, and their complaints ranged from lamentations that alien professions were monopolizing what was meant to be their domain, to reproaches that the new ‘experts’ were consistently failing to answer the teachers’ most urgent practical needs. This put the ‘experimenters’ on the back foot and, fearing that they were going to alienate the teachers irrevocably, they were now at pains to stress that their science did not, after all, seek to refute and replace pedagogy itself, but simply created a suitable scientific ‘foundation’ on which pedagogy should be developed.

This withdrawal allowed the experimenters’ academic rivals, based mostly at the universities’ philosophy departments, to start arguing that ‘experimentation’ could at best create only a value-neutral ‘empirical base’ for pedagogy, and that it was philosophy (as a form of social ethics) that was best positioned to define the ideals of education. In their scheme, whilst ‘experimental pedagogy’ and ‘paedology’ could perhaps suggest particular ‘means’ for achieving certain educational goals, only philosophy and ethics could specify what these goals actually were. Moreover, by arguing that pedagogy itself was by definition ‘normative’ (in contrast to ‘paedology’, which, as an empirical science, was purely ‘descriptive’), they claimed that it was not the paedologists, but the philosophers who should serve as the teachers’ ultimate guides.

And yet, given the teachers’ increasing frustration with everyone who, from higher, academic vantage-points, claimed authority over their own professional territory, both the experimental psychologists and the philosophers had, in fact, simultaneously to accord much more respect to the role of the teachers themselves, or more precisely, to the educators’ pedagogical intuition, individual creativity and knowledge of daily school realities. Thus, by 1917, a certain form of jurisdictional delineation was emerging between an (empirical) ‘science’, a (general) ‘philosophy’ and a (practical) ‘art’ of education. Since none of the three main parties involved seemed to have the upper hand, the compromise solution appeared to be a kind of provisional ‘peace agreement’ – a ‘carving up’ of pedagogy between educational philosophers (whose job was to define ultimate educational goals in the context of overall social and moral demands), experimental psychologists (who provided facts about child mental development, but devoid of value judgments and quite thin on practical recommendations), and practicing teachers (whose role remained in the domain of ‘application’ – namely to use their experience and pedagogical intuition to realize education on the ground, bearing in mind both the educational values stipulated by the philosophers and the demands of child development analysed and systematized by the psychologists).

However, this division of labour remained very tense and unstable, because all parties were still in jurisdictional conflict – first, over the question of what it was that ultimately defined pedagogy ‘as a science’, and second (and no less important), over the question of which principles were the ones that ought to be used, in the last instance, to legitimize the teachers’ concrete choice of educational practices or to guide the government’s future educational reforms. Both the experimenters and the philosophers were still claiming to be the ones who should ultimately be shaping pedagogy. Educators
remained divided in their allegiance, with some supporting the pre-eminence of the philosophers and others highlighting the decisive role of the positive sciences. Whilst many, of course, saw the virtues of both camps and hoped to see them forming a united front in furthering the science of education, the majority remained frustrated by the continuing uncertainty over pedagogy’s legitimacy, by the lack of connection between the ‘new pedagogies’ and the daily needs of education, and, finally, by the question of whether educators could ever become the masters of their own professional knowledge-base.

Dr Byford’s article ‘Turning Pedagogy into a Science: Teachers and Psychologists in Late Imperial Russia (1897-1917)’, Osiris 23 (2008), pp. 50-81, discusses in more detail the complexities involved in this process. The focus of analysis is on the Russian teachers’ drive to rise above the level of ‘semi-professionals’, specifically through reforms of ‘pedagogy’ as their specialist discipline. The question of pedagogy’s problematic status as an academic discipline or ‘science’ (in Russian nauka) in late Imperial Russia and the controversies surrounding its institutional supports and disciplinary re-conceptualizations lay at the heart of the educators’ struggle for social recognition and played a key role in attempts to transform their professional and public identity at this historical juncture. Dr Byford’s article presents the professional ‘identity crisis’ that Russian teachers were experiencing just before and around 1900 and analyses the controversial strategies used to reshape pedagogy into something resembling ‘science’, above all through a juxtaposition of the functions of education with the study of child psychology.

The Rise of Mental Testing in Child Science

One of the key questions posed by Dr Byford’s research is how exactly such a heterogeneous field of scientific, professional (and also political) work, as ‘child science’ functioned, insofar as it demanded continuous interaction, communication and negotiation across a multiplicity of distinct professional territories, disciplinary boundaries, institutional structures and communities of practice, involving considerable labour of translation between diverse stakeholder interests, languages and social worlds. Given this heterogeneity, articulating this work as cohering into some kind of ‘joint enterprise’ has proved far from straightforward – both at the time when this work was taking shape in the early 20th century and subsequently, in attempts to present a history of this movement.

One strategy has been to stress the collaborative aspect of the enterprise, i.e. to develop a certain rhetoric of collaboration, for example by stressing interdisciplinarity or by promoting ‘child science’ as an alliance of doctors, teachers and psychologists, among others. This is usually accompanied by efforts to articulate certain formal arrangements for such ‘collaboration’, especially through forms of ‘boundary work’, i.e. through intra- and inter-disciplinary and professional politics, resulting in a negotiated division of territories of action and labour between key participants.

The other, complementary, strategy has been the effort to articulate some sort of
‘disciplinary’ consensus – namely to create an integrated platform of disciplinary definitions, shared meanings, common aims, and agreed-upon methods that would define and distinguish paedology as a science. This was something that became especially significant in later stages, towards the end of the 1920s, with pressures to bring together the various strands of child study into a more integrated, if still complex, discipline. However, actual ‘consensus’ remained elusive, and was largely an institutionally and politically managed affair.

Both collaboration-negotiation and consensus-building are fascinating topics of study in their own right, crucial to understanding the dynamics of early 20th-century Russian ‘child science’. However, if we want to explain the actual scientific and professional work that takes place across diverse groups of actors, one should not merely analyse the politics of ‘consensus’ or ‘collaboration’, but should also look for the generation of particular instruments of this work, instruments capable of operating across these boundaries and within different disciplinary, professional and social environments. In order to do so, such instruments of collaborative scientific and professional work have to be designed to allow flexible interpretations and mobile uses across distinct areas of a heterogeneous field. Their principal property is in fact their ambiguity, and the latter emerges through their displacement across boundaries and between environments, while still maintaining a certain divergence of perspectives, priorities and conventions of practice of the various participants involved in this work. One such key instrument of early-20th-century ‘child science’, which in many ways held together this heterogeneous field of scientific and professional work, was the mental test – understood broadly to include a whole variety of different forms of psychological (personality as well as cognitive ability) testing.

In Russia, the primary framework within which mental testing was elaborated and debated was that of the psychological experiment. The notion of ‘the experiment’ was crucial to debates over the scientific identity of psychology at this time. In the history of Russian psychology of this era the very term ‘experiment’ acquired, in fact, a certain militant ring, because those who promoted psychological ‘experimentation’, specifically in the form of personality and cognitive ability tests, were groups of researchers (e.g. A. Nechaev and his followers) who were excluded from official academic seats of psychology – the philosophy departments at universities – and who were forced to build an alternative network of institutions to support their work primarily in the context of teacher training. Thus, their emphasis on (natural-scientific-like) ‘experimentation’ was to a large degree the result of their academic insecurity and involved a direct confrontation with university-based academic psychologists, who remained very sceptical about these new methods.

The militancy of the term ‘experiment’ was maintained in its insertion into the realm of...
education, and presented as a way of revolutionizing not just psychology, but also pedagogy. Because mental testing was at this point in Russia developed especially in teacher-training establishments, it was promoted not only as a method of ‘experimental psychology’ but simultaneously and ambiguously as the key method of so-called ‘experimental pedagogy’. However, this shift was made in such a way that experimental psychology and experimental pedagogy often appeared interchangeable. When added to ‘pedagogy’ the adjective ‘experimental’ meant not experimentation with different teaching and learning methods, but the educationally relevant study of children’s minds by means of psychological experiments (i.e. mental tests).

This move involved also the strategic juxtaposition of ‘the psychological lab’ with ‘the school’ in a number of different ways. The most basic one involved pure rhetoric – i.e. a metaphorical re-description of schools as (virtual) laboratories and teachers as (virtual) psychologists, with their pupils as their experimental subjects. This rhetoric could be found in propaganda campaigns that promoted experimental psychology among teachers. Secondly, some experimental psychologists also encouraged the setting up of actual mini psychological labs in schools. They designed a special kit that consisted of a collection of simplified experimental apparatuses and mental tests that enthusiast teachers could purchase for relatively little money. The exact purpose of these kits was very vague, however. Officially, they were meant to serve as aids in the teaching of psychology, which was introduced as a new subject into the curriculum of male high-schools in 1906. At the same time, however, these kits were also promoted to teachers as part of their own training in experimental psychology. A number of teachers, to the horror of university professors, even gave papers at scientific conferences about the tests that they performed on their pupils. Finally, another way of transposing the lab into the school took place through the development of certain innovative experimental methodologies, such as the so-called ‘natural experiment’, (developed by A. Lazursky) which involved making use of school lessons and classroom activities as experimental frameworks for performing personality tests. For example, a researcher would sit at the back of the class and would observe the behaviour of an individual child in a series of lessons. These lessons would be designed to appear ‘natural’, while actually measuring specific cognitive abilities and assessing personality traits, based on a prepared programme. Ultimately the child’s psychological ‘profile’ was produced in both verbal and graphic form, i.e. as a diagram.

Although the cognitive functions that were being measured here tended to be selected largely on the grounds of their usefulness in and applicability to the education process, this testing was not strictly speaking ‘applied’ research. Research results were commonly framed as debunking allegedly false assumption of the old, ‘unscientific’ pedagogy, but it was rare for such research to provide concrete guidance about actual teaching practice. Instead, what seemed to catch the imagination of run-of-the-mill teachers the most was the potential of using mental testing as an instrument for the assessment of pupils. Indeed, experimental techniques of measuring psychological functions were interpreted as close homologues of the standard school practice of the school examination. What the teachers were especially attracted to was the idea that ‘experimental psychology’ could provide a method of scientifically evaluating and classifying the abilities of schoolchildren.
The reason why this was so important was that exams were both the most important and the most controversial form of exercise of power in Russian schools at this time. Exams and other assessments were not just important in relations between teachers and pupils, but also teachers and parents, who fought constant battles after exams, when parents often challenged the teachers’ assessment methods, especially if their child was forced to repeat a year. Exams also played an important role in the public image of teachers, since they were often portrayed in the press as emblematic of teachers’ arbitrary authoritarianism, with pupils as victims of what was dubbed ‘exam torture’, which in extreme cases allegedly led to child suicide. Pupils’ exam results were also the way in which the teachers’ own performance was assessed by their bureaucratic superiors, the headmasters and school inspectors. Consequently, many teachers saw in these new, scientifically-based mental tests a solution to their problems of professional status and autonomy – they could finally use the authority of ‘experimental psychology’ to legitimize as ‘objective’ their evaluations of their pupils and any consequent decisions, be it to make the child repeat a year, expel it from school, refer it to a special class, or award it a scholarship.

Alongside psychologists involved in teacher-training, the group that was most interested in mental testing were those few psychiatrists who ran Russia’s first school-sanatoria and diagnostic centres for so-called ‘defective’ children. They framed mental tests as essentially diagnostic methods. The very idea of ‘diagnosis’ and the fact that it was medical professionals who devised these tests, implied that these tests were designed to discover pathologies. However, in practice, the pathological nature of mental problems in children was in fact much less clear and the boundary between normality and pathology remained institutionally as well as conceptually very blurred, especially when deployed in the educational setting.

As a ‘diagnostic’ tool mental tests became packaged into so-called branded ‘methods’, i.e. collections of test cards that measured different mental properties in an interrelated way and that were in the end meant to provide some tangible measure of an individual’s cognitive abilities or overall psychological profile, represented in numerical or graphic form. As elsewhere in the world, the famous Binet–Simon test was widely used in Russia as well. However, the most popular, as well as the most controversial, native Russian ‘method’ was the one developed by the Moscow-based psychiatrist Grigorii Rossolimo (1860–1928). What this ‘method’ amounted to was a series of tests, each of which evaluated one particular mental function, such as attention, observation, memory, and so forth, using ten questions for each function. The children tested were awarded points on the basis of how many correct answers they gave in each series of questions. These results could then be neatly represented on a graph. This way the psychology of each child could be drawn as a simple curve, which Rossolimo called the ‘psychological profile’. The press was especially impressed by this, portraying it as tantamount to a ‘photograph of the soul’. Rossolimo also came up with a mathematical formula that synthesised the results obtained in the different tests into a single figure (as is done today with the IQ), to be used to determine the exact level of the child’s giftedness or mental retardation.

University professors of psychology were very critical of this method arguing that it was not based on any clear psychological theory. Rossolimo himself was at all times very vague about what it was that his method was really assessing. When pinned down he, because of his medical
background, usually said that his test was ultimately diagnosing only pathological phenomena, namely levels of retardation. However, his method was constantly ‘plugged’ in all schools as the most comprehensive as well as the most practical general personality test on the market. Indeed, it was not just the authors of these methods but even more so their clients – the teachers, the general public, and ultimately the state – that ‘black-boxed’ any form of mental testing into particular ready-made instruments of assessment.

Vital to the rise of mental testing in late tsarist Russia was the confusion that characterised this constant displacement of mental testing between the realms of scientific experimentation, scholastic assessment, medical diagnostics, and bureaucratic accounting. There seemed to be an almost deliberate, although not necessarily conscious, ‘muddying of the waters’, and it was precisely this cross-boundary ambiguity that initially benefited the legitimisation of these practices as well as held this field of ‘child science’ together. However, this confusion also kept both ‘child science’ and mental testing as one of its core instruments highly precarious, which is how mental testing ended up being the Achilles heel of ‘paedology’ in the 1930s.

Dr Byford’s article ‘Psychology at High School in Late Imperial Russia (1881-1917)’, History of Education Quarterly 48 (2008), pp. 265-297 deals with some aspects of these developments in tsarist Russia. In the course of 2012 and 2013 Dr Byford will also be writing an article specifically on the problem of mental testing in Russian/Soviet child science, examining not just its controversial rise in the late tsarist period but also its flourishing and then eventual downfall in the early Soviet era.

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**Doctors in Education**

The history of professions is the history of inter-professional conflicts over jurisdiction. The evolution of the medical profession was not only marked by struggles between physicians and their immediate rivals in the treatment of sickness – such as, in the nineteenth century, the homeopaths in America, the apothecaries in England, or the medical orderlies in rural Russia, not to speak of all manner of folk-healers throughout the world. It also involved serious boundary battles that doctors fought with professionals whose expertise and tasks belonged to entirely different domains, such as, for example, lawyers in the area of medical jurisprudence and criminological theory, especially in debates over criminal insanity and juvenile delinquency.

Most professions – and major ones, such as medicine, in particular – display strong expansionist tendencies – the drive to include all aspects of social life, at least potentially, within their jurisdiction. Jurisdictional expansion is controversial because it implies that doctors strategically move outside their professional heartland, beyond the traditional boundaries of clinical practice, and into fuzzy areas where medicine engages with phenomena that are simultaneously claimed by other professions. Expansion is the consequence, in part, of the need for professions to make their jurisdictional claims in the wider public domain. It is also the result of professions having continuously to adapt their work and expertise to new social or technological demands, as well as respond to challenges of a variety of potential rivals.
Jurisdictional expansion is made possible by the nature of expert knowledge that supports and gives legitimacy to professional work. Although usually formulated in a specialist way, professional knowledge invariably entails high levels of abstraction that makes it transferable to different situations, including entirely new and hypothetical ones. In the case of medicine, this enabled the extension of the definition of ‘sickness’ and ‘pathology’ far beyond its obvious manifestations, leading to the ‘medicalization’ (actual or metaphorical) of many areas of social life. Decisive here was the successful construction of the ambiguous notion of ‘health’ and the creation of a pervasive concern with the open-ended matter of ‘public health’ and its management.

As part of his research into Russian ‘child science’ Dr Byford has been especially interested in the collaborations and conflicts between physicians and other professionals in a number of key boundary areas where medical work overlapped with some quite different social tasks. One such controversial territory was the field of education. Dr Byford’s article, ‘Professional Cross-Dressing: Doctors in Education in Late Imperial Russia (1881-1917)’, The Russian Review 65 (2006), pp. 586-616, discusses in detail key areas in which Russian doctors infiltrated and influenced the teaching profession at the turn of the 20th century.

In this period, some parts of the Russian medical profession sought to play a pivotal role in the re-conceptualization of education on new ‘rational’ grounds. The crisis of education theory or ‘pedagogy’ as the academic foundation of the teaching profession opened up a breach in the educators’ jurisdictional defences. Doctors working in areas such as hygiene and psychiatry, in particular, pounced on the weaknesses of the teachers’ theoretical conceptualizations of their professional tasks and made the most of redefining the content of teacher training by imposing on it medical paradigms and concerns. The teachers in principle welcomed the contributions of doctors, hoping thereby to enhance the scientific credibility of their own work, but they saw medical knowledge as only auxiliary, and they used the model of medical thinking mostly metaphorically. However, a number of doctors successfully infiltrated the highest echelons of pedagogical theorization, occupying key posts at teacher-training establishments. They were mainly lecturers in school hygiene and child psychopathology, but, given their scientific credentials and professional reputation, they also strongly influenced the general theorization of pedagogy and educational psychology, at all times blurring the boundary between medicine and teaching.

Attempts to infiltrate regular teaching practice proved rather more difficult. The ambitions of some hygienists to turn the post of ‘school doctor’ into a figure who would be in full charge of school management on a daily basis were ultimately a failure. There were a number of causes for this, including, especially, the poor remuneration of doctors for the work carried out in schools, which reflected the tsarist
government’s relative lack of interest in these tasks. However, probably more important was the jurisdictional frontier between medicine and education that teachers were able to defend far more successfully ‘on the ground’ than at the higher, academic level. This is why even individual enthusiast physicians, who tried their best systematically to implement the principles of school hygiene, struggled to impose their concerns on teachers and school administrators, and at best acted as provisional consultants whose advice was never considered decisive. The attempts by the psychiatrists in the 1910s to make the school doctor more relevant by empowering him with expertise in child psychology offered a glimpse of hope that such a physician could play a more active role in schools, but this did not materialize either, as the doctors’ professional identity would have become too vague in the realm beyond ‘pathology’. Later on, however, in the Soviet era, especially the late 1920s, ‘school doctors’, working under the auspices of the Commissariat of Health, became key recruits for the post of the ‘school paedologist’ and in this context their responsibilities were meant to go well beyond school healthcare.

Overall, however, the doctors had to be satisfied with reinforcing their positions on the margins of the education system – namely in those areas of education where teachers were consistently failing to fulfil their professional responsibilities – where they were faced with ‘unteachable’ children who seemed to fall outside the established norms of educational development. This was the area that the doctors were able to define convincingly as a fuzzy boundary between ‘normality’ and ‘pathology’, a border where educational problems merged inextricably with medical ones. As the only profession entitled to patrol and define the threshold of ‘abnormality’, the doctors, in fact, reinforced this ‘frontier’ aspect of special education. While insisting on the expandability and the finely graduated nature of this boundary, they turned it into a sector of education where they, ultimately, had the final say.

Doctors were able to profit from the chaotic transformations that Russian education was experiencing in the early 20th century. In the continuous, often highly radicalized, revising of educational principles and practices characteristic of this era, doctors appeared now as allies, now as rivals to the teaching profession. Although they strove to occupy as much of the teachers’ territory as they were allowed, they were ultimately able to establish secure positions only in areas where teachers were the weakest – in the domain of the ‘scientific’ theorization of education (i.e. as academics in teacher-training establishments) and in those parts of educational practice where the teachers’ existing educational tools and methods failed to do the job – the at that time vague area of special education that the doctors could successfully ‘pathologize’.

The Language of Behaviourist Neuroscience

Neurophysiology and neuropsychiatry have been especially strong in late-tsarist and early-Soviet Russia, especially in the work on conditioned and unconditioned reflexes by the physiologist Ivan Sechenov (1829-1905), the Nobel laureate Ivan Pavlov (1849-1936), and the psychiatrist Vladimir Bekhterev (1857-1927), as well as their followers. The role that this particular tradition (that of ‘reflexology’, in Russian refleksologiiia; not to be confused with the alternative foot
massage therapy) has played in the history of the Russian/Soviet human sciences, especially psychology, has been well recognised. However, less clearly documented is the place that this particular strand of research occupied in Russian/Soviet ‘child science’.

It was Bekhterev’s version of ‘reflexology’, developed as a neurologically-based general theory of human behaviour, which became particularly influential in the field of Russian ‘child science’. Bekhterev had founded a small Institute of Paedology in St Petersburg, devoted to the ‘objective’ study of early child development, already in 1907. However, it was mostly only in the mid-1920s USSR that Bekhterev’s reflexological behaviourism became, for a while, a dominant paradigm within the Soviet ‘child science’ movement, thanks to its radical materialist reframing of human psychology, much appreciated on ideological grounds by many Bolsheviks.

In the course of 2013 Dr Byford will be working on an article that will chart the evolution of this school within the Russian/Soviet ‘child science’ movement. The focus of the article will be on the way in which the esoteric scientist language of Pavlov’s and Bekhterev’s reflexology shaped the discourse of ‘paedology’, and especially the way it was being (mis)translated in the collaborative development of ‘child science’ across disciplinary, professional and institutional boundaries. Of particular interest is how and to what effect the highly technical and biological discourse of ‘reflexology’ was being transposed into and between the discourses of psychology, teaching, medicine, politics and state administration at a key juncture in the rise and fall of early-Soviet ‘child science’. A preliminary draft will be proposed as a conference paper to the History of Science Society 2013 Annual Meeting, to be held on 21-24 November in Boston, MA, USA.
Juvenile Delinquency as a Territory of Expertise

Also in the course of 2013 Dr Byford is planning to write an article on the rise of juvenile criminology in late tsarist and early Soviet Russia (1880s-1930s). This was a period of seismic social upheaval associated with urbanization, industrialization, war, revolution and famine that led to a remarkable rise in the number of street children in Russia. The focus of the article will be on inter-professional collaboration and jurisdictional battles between jurists, doctors and educators in the construction of ‘juvenile delinquency’ and in the organization of social and state welfare around it. The article will argue that ‘juvenile delinquency’ developed in Russia at this historical juncture as a ‘trading zone’ in which different professions and disciplines came together to ‘trade off’ conceptual resources, forms of power and patterns of self-representation around an emergent and controversial territory of expertise. It will juxtapose the analysis of the (macro and micro) institutional management of juvenile delinquency, specifically in institutions for young offenders, with the analysis of the construction of ‘juvenile delinquency’ as a distinct domain of knowledge and science (a key area of the growing interdisciplinary field of criminology).

The article will be submitted to the Journal of the History of Childhood and Youth by the end of October 2013. A conference paper on this topic, serving as a preliminary draft, will be presented at the Sixth Biennial Conference of the Society for the History of Children and Youth, to be held on June 25-27 at the University of Nottingham.
About Dr Andy Byford

Dr Byford is Lecturer in Russian at the School of Modern Languages and Cultures at Durham University, a position which he has held since 2009. Prior to Durham, he was Research Fellow at Wolfson College, Oxford University.

He is the co-editor of *Making Education Soviet 1917–1953* [special issue of the Journal *History of Education* 35 4-5). For a full list of publications, please see his Durham University staff page.

Recent Publications

2013 'Parent Diaries and the Child Study Movement in Late Imperial and Early Soviet Russia’, *The Russian Review* 72, pp. forthcoming.


2008 'Psychology at High School in Late Imperial Russia (1881-1917)’, *History of Education Quarterly* 48, pp. 265-297.

2008 'Turning Pedagogy into a Science: Teachers and Psychologists in Late Imperial Russia (1897-1917)', *Osiris* 23, pp. 50-81.

2006 'Professional Cross-Dressing: Doctors in Education in Late Imperial Russia (1881-1917)', *The Russian Review* 65, pp. 586-616.
